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ABSTRACT

A study assessed the level of workers' knowledge of their pension plan's provisions related to early and normal retirement. The data used were from the 1983 Survey of Consumer Finances. The survey, which was based on a nationwide sample of more than 3,800 households and more than 1,000 public and private pension plans that covered them, asked the respondents if they would be eligible for early retirement and when they would first be eligible for full retirement benefits (normal retirement) or reduced retirement benefits (early retirement). The following inferences were drawn on the basis of the data collected in the 1983 survey: (1) over 40 percent of the 22 million workers in pension plans offering early retirement were either incorrect or did not know about their eligibility for early retirement benefits; (2) about 75 percent of the 12 million workers who were correct about being eligible for early retirement benefits were either incorrect or did not know about their eligibility data; (3) workers who would be eligible for early retirement were from 3 to 17 times more likely to know about their eligibility than those who would not be eligible; (4) having had education beyond high school and being more than 5 years from eligibility for early retirement were two factors associated with a higher likelihood of being correct about one's own retirement benefits; and (5) women were from 2.5 to 5 times as likely as men to say that they did not know about their early retirement eligibility. (An appendix details the log-linear analysis used in this study.) (MN)

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United States General Accounting Office

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Briefing Report to the Chairman, Select Committee on Aging, House of Representatives

August 1987

PENSION PLANS

Many Workers Don't Know When They Can Retire

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United States
General Accounting Office
Washington, D.C. 20548

Human Resources Division

B-222718

August 12, 1987

The Honorable Edward Roybal
Chairman, Select Committee on Aging
House of Representatives

Dear Mr. Chairman:

You requested information on workers' knowledge of pension plan provisions related to early and normal retirement. Discussions with your office indicated a concern that workers who do not know about their pension provisions could be seriously hampered in their retirement planning. Our review indicates that millions of workers do not understand their plans' early and normal retirement eligibility requirements as described in their plans' documents. We focused on the extent of workers' knowledge of their pension plans, but we did not determine the causes for their lack of knowledge, nor did we address the extent to which this lack of knowledge could result in poor career and retirement planning decisions. However, unless workers obtain, or employers provide, accurate pension plan information before workers make decisions affecting their careers, they may make work and retirement decisions they later regret.

We used information from the 1983 Survey of Consumer Finances to estimate the number and characteristics of workers in defined benefit pension plans nationwide who knew (1) if they would be eligible for early retirement and (2) when they would first be eligible for full retirement benefits (normal retirement) or reduced retirement benefits (early retirement). The survey, conducted by the University of Michigan's Survey Research Center under contract with the Federal Reserve Board, collected pension and other information from a nationwide sample of over 3,800 households and over 1,000 public and private pension plans that covered working members of those households. Even though some workers may have misinterpreted survey questions, or some plan documents may have been deficient, the differences between workers' responses and plan descriptions are sufficiently large to allow the conclusion that many workers do not understand the provisions of their pension plans.

Regarding early retirement, we estimated that in 1983:

- Over 40 percent of the 22 million workers in pension plans offering early retirement were either incorrect or did not know about their eligibility for early retirement benefits.

- About 75 percent of the 12 million workers who were correct about being eligible for early retirement benefits were either incorrect or did not know about their eligibility date—an estimated 7 million workers thought they could retire at an age that differed from plan requirements by more than 1 year, and 2 million did not know when they would be eligible.
- Workers who would be eligible for early retirement were from 3 to 17 times more likely to know about their eligibility than workers who would not be eligible.
- Among workers who would be eligible, (1) those who had education beyond high school were 2 times as likely to know they would be eligible as those without education beyond high school, and (2) those who were more than 5 years from eligibility for early retirement were 1.5 times more likely to know than those who were within 5 years of eligibility.
- Women were from 2.5 to 5 times as likely as men to say that they did not know about their early retirement eligibility.

Regarding normal retirement, we estimated that:

- Over 70 percent of the 25 million workers in pension plans were not correct about when they would be eligible for normal retirement benefits—an estimated 14 million workers reported an eligibility age that differed from plan requirements by more than 1 year, and 4 million workers did not know when they would be eligible.
- Men were 1.4 times more likely than women to know when they would be eligible for normal retirement.
- Workers within 5 years of normal retirement were 1.8 times more likely than workers 5 or more years away from normal retirement to know when they would be eligible.

As requested by your office, we did not obtain formal written comments on this briefing report. However, we discussed the contents with an official from the Department of Labor's Pension and Welfare Benefits Administration and incorporated his comments where appropriate. We plan no further distribution of this briefing report until 30 days from its issue date, unless you publicly announce its contents earlier. At that

time, copies will be sent to various congressional committees concerned with aging and pensions, as well as to the Department of Labor and other interested parties. If you have questions, please call me on 275-6193.

Sincerely yours,

Joseph F. Delfico
Senior Associate Director

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Abbreviations

ERISA	Employee Retirement Income Security Act of 1974
SCF	Survey of Consumer Finances
SPD	Summary Plan Description

Pension Plans: Many Workers Don't Know When They Can Retire

What is the youngest age or the minimum years of service at which you could receive full retirement benefits from your pension plan?

If you wished to, could you retire earlier and receive reduced benefits from this plan?

If so, what is the youngest age or the minimum years of service at which you could retire and begin drawing at least partial benefits from the plan?

These questions were asked of workers in a nationwide sample of over 3,800 households in the 1983 Survey of Consumer Finances (SCF) to find out what workers know about their pension plan retirement provisions. Sampled workers' responses to these questions are projectable to about 25 million workers.

Workers who know the ages at which they will be eligible for full retirement benefits (i.e., normal retirement) or reduced benefits (i.e., early retirement) can make better work and retirement decisions. Workers who do not have accurate information about their pension plans or make decisions based on misperceptions about their plans may change jobs or retire earlier or later than they would find optimal had they had better pension information.

The Chairman of the House Select Committee on Aging asked us to review workers' knowledge of their pension plans' early and normal retirement provisions as part of a broader review of retirement income policy.[1]

Pensions and income from savings and assets are the main components of retirement income that supplement social security benefits. According to the Social Security Administration's 1982 New Beneficiary Survey, among people who first received social security retired-worker benefits between mid-1980 and mid-1981, 56 percent of couples and 42 percent of unmarried individuals received pension income. To help the elderly maintain an adequate standard of living, the federal government encourages the establishment of employer-sponsored pension plans using tax policies that benefit employers and employees.

[1]This is the second and final report designed to meet the Chairman's request. The first was Retirement Before Age 65: Trends, Costs, and National Issues (GAO/HRD-86-86, July 1986).

Background

To qualify for tax benefits, a pension plan must comply with the Employee Retirement Income Security Act of 1974 (ERISA), as amended. ERISA rules govern eligibility for participation in a pension plan, the amount and financing of plan benefits, and the use of summary plan documents to provide information to plan participants.

Pension plan participants are entitled to receive retirement benefits after they reach a specified age, work a specified number of years, or both. For example, a plan may allow workers to retire with full benefits at age 55 as long as they have worked at least 30 years for the firm. Under ERISA, the normal retirement age cannot be later than age 65 with 10 years of participation in the plan.

In addition, many plans permit retirement earlier than the normal retirement age, usually subject to specific age and service requirements. Early retirement benefits are generally lower than normal retirement benefits because (1) pensions of participants who retire early are based on fewer years of service and (2) their pension benefit will be paid over a longer period of time.

ERISA requires pension plan administrators to provide understandable pension plan information to participating workers. The information, in the form of a Summary Plan Description (SPD), gives workers details about (1) the amount of their pension benefits, (2) age and service requirements for receiving the benefits, and (3) conditions that might prevent them from receiving benefits. While these reporting requirements apply only to private employer-sponsored plans, many public pension plans furnish similar reports to their participants.

We found little prior research on workers' knowledge about their pension plans. One study of a sample of 502 workers at one firm concluded that workers had generally good information about their pension plan.[2] However, a question about early retirement eligibility had the highest rate of incorrect responses—28 percent (99 workers) answered it incorrectly. In a study that used SCF data, 32 percent of workers in plans with early retirement knew that their plans' early retirement requirements were based on either age or years of employment or both. The study also

[2]Greg J. Duncan, et al., A Validation Study of Economic Survey Data (Ann Arbor: Survey Research Center, Institute for Social Research, The University of Michigan, June 1984).

showed that 68 percent of the workers correctly identified the normal retirement requirements.[3]

Our review focused on workers' knowledge of their pension plan provisions, not how they were informed of these provisions. However, a 1982 study for the Department of Labor evaluated 75 SPDs.[4] Sixty-four (or 85 percent) had errors or omissions concerning one or more key provisions. The description of early retirement benefits was a problem for 20 percent of the plans. Frequently, these SPDs omitted the entire early retirement provision. Other problems were errors or omissions in describing normal retirement benefits (51 percent of the plans), and errors in defining the normal retirement age, usually omitting this age from the SPD (7 percent).

Objectives, Scope, and Methodology

In response to a request by the Chairman of the House Select Committee on Aging, we examined workers' knowledge of the retirement provisions in their pension plans. Our principal objectives were to (1) determine how many U.S. workers knew about plan provisions related to eligibility for early and normal retirement and (2) identify the characteristics of workers who were more knowledgeable. We used data from the SCF to determine whether workers knew they would be eligible for early retirement and whether they knew when they would be eligible for early or normal retirement. We did not review information in the SPDs, how employers distributed them, or what workers did with them.

The University of Michigan's Survey Research Center conducted the SCF for the Board of Governors of the Federal Reserve System. It collected comprehensive asset and liability information for a national sample consisting of 3,824 U.S. households in 1983. (See app. I for details about the sample.) The center also collected detailed information on 1,012 pension plans sponsored by public and private employers of those workers surveyed who reported they were covered by a pension plan. The pension plan information came from documents supplied to the center by employers (including SPDs) and responses to survey questions asked of workers and their spouses. (The questions asked about normal and early retirement age and service requirements are cited on p. 6.)

[3]Olivia Mitchell, "Worker Knowledge of Pension Provisions," in Explaining Patterns in Old-Age Pensions, final report submitted to the National Institute on Aging, Aug. 1986.

[4]MG Associates, Inc., Evaluation Study of the Effectiveness of Summary Plan Descriptions Submitted Under the Employee Retirement Income Security Act (ERISA), Final Report, Apr. 1, 1982.

We examined the interview and data verification procedures used by the center and the Federal Reserve Board to ensure SCF data quality and verified a portion of these data ourselves. The center has conducted surveys of consumer finances for the Board since 1947. In addition to using standard survey practices, center interviewers, in 1983, encouraged SCF respondents to consult other family members and financial records to obtain complete and accurate responses. These procedures can minimize reporting errors that may occur in any survey because respondents misunderstand questions, falsify responses, or lack interest in the survey. Center staff with extensive training in pension documents coded pension data, according to the survey director. The Federal Reserve Board edited and reviewed the data for internal consistency.

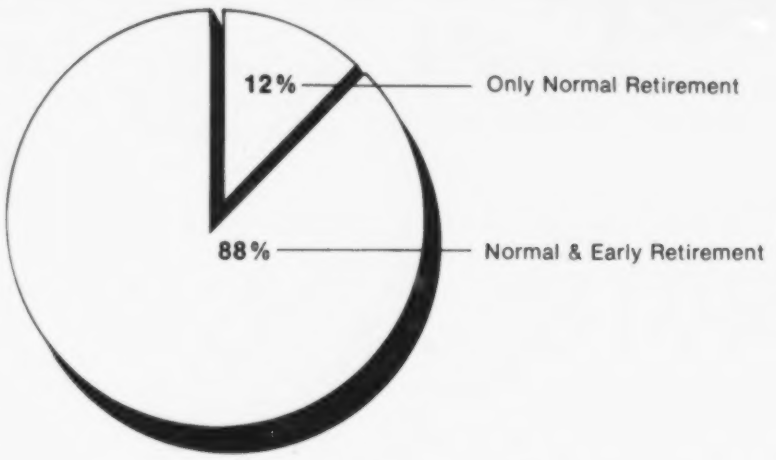
We compared the SCF data with the Bureau of the Census's 1983 Current Population Survey and ensured that the proportions of workers in various sex, race, and geographic categories were accurate. We also verified that, for a random sample of cases, the SCF computerized data did not differ from the data contained in the household survey documents. We did not verify the pension plan information, such as SPDs, supplied by employers. Although the Department of Labor study of 75 SPDs, cited on page 8, indicated that SPDs were not always completely accurate in describing all the plan provisions, many of the problems found did not relate to retirement eligibility provisions.

The SCF provides data on workers participating in both defined benefit and defined contribution pension plans. In a defined benefit plan, a formula is used to calculate retirement benefits; in a defined contribution plan, employer contributions are fixed by a formula. To determine workers' knowledge of retirement provisions, we analyzed public and private sector workers participating in defined benefit pension plans sponsored by their current employer. The SCF asked workers about their "main or basic" pension plan; therefore, our analysis could not include workers in more than one defined benefit plan because we could not readily determine which plan was the main plan. We also excluded workers who participated only in defined contribution plans. Nevertheless, over 90 percent of the sampled workers in pension plans were included in our analysis.

Based on the SCF data, we estimated that about 25 million U.S. workers were in a defined benefit plan in 1983. About 88 percent of these workers (an estimated 22 million) were in plans with an early retirement option, as shown in figure 1. Among the 25 million workers, about 43

percent (an estimated 11 million workers) worked for public employers—federal, state, or local government; a public or private school or college; or the military. (See app. I for the sampling errors for selected estimates.)

Figure 1: Workers in Plans Offering Early Retirement (1983)



Source: GAO estimates calculated from the 1983 SCF.

To determine how many workers knew their plans' retirement provisions, we compared information on their plans' early and normal retirement requirements included in the data set with their responses to the SCF questions on (1) eligibility for early retirement and (2) ages at which they could retire with either full or reduced benefits. Using plan provisions and information on workers' ages and tenures, we calculated the youngest ages at which each worker would become eligible for normal and early retirement (referred to in this report as the "plan normal retirement age" and "plan early retirement age," respectively), assuming that the workers remained with their employers until retirement. Workers who responded that they would be eligible for early retirement were considered correct if their plan early retirement age preceded their plan normal retirement age. We classified workers as correct about their normal or early retirement ages if their plan ages and the workers' responses were within 1 year. (For additional details and examples of

how we determined workers' knowledge of their pension retirement provisions, see app. II.)

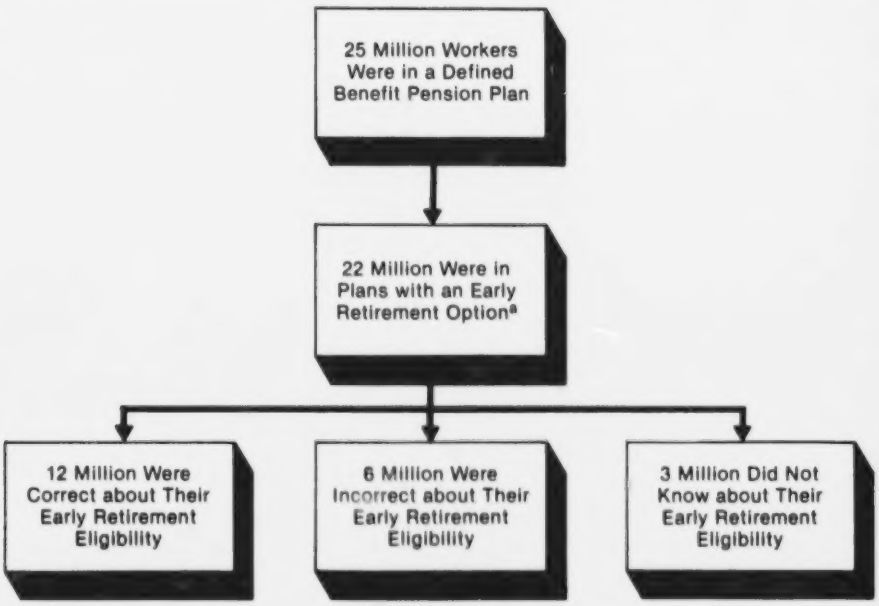
To identify the characteristics of workers who were more knowledgeable about their retirement provisions, we performed descriptive statistical analyses for the following characteristics—education, sex, age, length of time on the job, and length of time until retirement eligibility (either early or normal). We discuss differences in these characteristics when they were significant at the 95-percent confidence level. In addition, for both the early retirement eligibility and normal retirement age questions, we used log-linear analysis (described in app. III) to identify relationships among workers' knowledge and their sex, education, and proximity to retirement (a function of both age and length of service) simultaneously. In the analysis of early retirement eligibility, we included one other characteristic—whether the worker would be eligible for early retirement.

As agreed with the Chairman's office, we did not obtain formal written comments on this report. However, we discussed its contents with an official from the Department of Labor's Pension and Welfare Benefits Administration and incorporated his comments where appropriate. Our review was conducted in accordance with generally accepted government auditing standards.

Many Workers Lacked Knowledge of Early Retirement Eligibility

Among workers in defined benefit plans with an early retirement option in 1983, 41 percent were either incorrect (an estimated 6 million workers) or did not know (3 million workers) about their early retirement eligibility, according to our projections from SCF data (see fig. 2). A greater proportion of workers without education beyond high school were not correct, as were a greater proportion of women. Workers who were going to qualify for early retirement, had education beyond high school, and were more than 5 years away from their plan early retirement age were more likely than any other workers to be correct. Unexpectedly, workers who were closer to their plan early retirement age were not always more likely to be correct than those further away. Women were more likely than men to say they did not know if they could retire early.

Figure 2: Workers' Knowledge of Their Early Retirement Eligibility (1983)


25 Million Workers Were in a Defined Benefit Pension Plan
22 Million Were in Plans with an Early Retirement Option[a]
12 Million Were Correct about Their Early Retirement Eligibility
6 Million Were Incorrect about Their Early Retirement Eligibility
3 Million Did Not Know about Their Early Retirement Eligibility

[a]Data on 1 Million Workers Were Not Complete Enough to Determine Their Knowledge of Their Early Retirement Eligibility.

Source: GAO estimates calculated from the 1983 SCF.

Higher Percentage of Women, Less Educated Lacked Knowledge

About 46 percent of women (an estimated 5 million workers) either were incorrect or did not know about their eligibility for early retirement, compared to 37 percent of men (4 million workers) (see table 1). Among workers without education beyond high school, 47 percent (an estimated 5 million workers) were not correct, while 37 percent of those workers with education beyond high school (4 million workers) were not correct. With respect to their knowledge of early retirement eligibility, the differences among workers of different ages, lengths of time on the job, and years until early retirement eligibility were not statistically significant. In addition, knowledge of early retirement eligibility did not vary significantly between public sector and private sector workers.

Table 1: Characteristics of Workers Who Were Not Correct About Their Early Retirement Eligibility (1983)

Characteristic	Not correct about early retirement eligibility[a]	
	Percent of sample	Estimated number (millions)
Education:		
Beyond high school	37[b]	4.1
Not beyond high school	47	4.8
Sex:		
Men	37[b]	3.9
Women	46	5.0
Years until early retirement:[c]		
5 or less	39	1.2
More than 5	43	6.9
Age:		
Less than 45 years	40	5.5
45 to 54 years	45	1.9
55 years or more	45	1.6
Tenure:		
Less than 10 years	42	4.7
10 years or more	41	4.3

[a]Includes workers who were incorrect or said they did not know. Estimate based on 21 million workers in defined benefit plans with early retirement.

[b]Difference significant at the 95-percent confidence level.

[c]Data for an estimated 1 million workers were not complete enough to determine the number of years until early retirement.

Knowledge Varied by Eligibility, Proximity to Early Retirement, Education

Workers who would be eligible for early retirement, assuming they remained with their current employer in the same pension plan, always had greater odds of knowing about their future eligibility status than workers who would not qualify. In fact, workers who would be eligible were from 3 to 17 times more likely to know about their future eligibility status than workers who would not qualify. The odds of workers knowing about their eligibility for early retirement depended on how close they were to their plan early retirement age and on their level of education. (Details of this log-linear analysis appear in app. III.)

Comparing workers who would be eligible with those who would not:

- Among workers within 5 years of their plan early retirement age, those with a high school education or less who would be eligible were 2.7 times more likely to know about their eligibility. Those with education

beyond high school who would be eligible were 5.6 times more likely to know.

- Among workers more than 5 years from their plan early retirement age, those with a high school education or less who would be eligible were 8.4 times more likely to know about their eligibility. Those with education beyond high school who would be eligible were 17.3 times more likely to know.

Contrary to expectations, workers who were closer to their plan early retirement age were not always more likely to know about their eligibility status than those further away. Among workers who would qualify for early retirement (an estimated 18 million nationally), those over 5 years away from their plan early retirement age were 1.5 times more likely to be correct than those within 5 years of this age. In contrast, among workers who would not qualify for early retirement, those who were over 5 years away from their plan early retirement age were half as likely to be correct as those within 5 years of this age.

The effect of education on workers' knowledge depended on whether workers would qualify for early retirement. Among workers who would be eligible for early retirement, those with education beyond high school were twice as likely as those without education beyond high school to know their early retirement eligibility status. However, among workers who would not be eligible for early retirement, there was no difference in knowledge between workers with education beyond high school and those without.

Women More Likely to Say They Did Not Know

Depending on how close workers were to their plan early retirement age, women were from 2.5 to 5 times as likely as men to respond that they did not know their early retirement status. (See app. III for details of this log-linear analysis.)

- Among workers who were within 5 years of their plan early retirement age, women—regardless of education or eligibility status—were 5 times as likely as men to say they did not know.
- Among workers who were more than 5 years from their plan early retirement age, women were 2.5 times as likely as men to say they did not know, regardless of their education or eligibility status.

However, comparing the workers who were correct about their early retirement eligibility status with those who were incorrect (excluding those who said they did not know), the odds of being correct did not

vary by sex. Men and women were equally likely to be correct, no matter what their education, proximity to early retirement, or eligibility status.

Most Workers Did Not Know When They Would Qualify for Early Retirement

About 75 percent of the workers who knew they would be eligible for early retirement did not respond correctly to the question about when they would qualify (see fig. 3). This represents an estimated 9 million workers. A greater proportion of workers more than 5 years away from their plan early retirement age were either incorrect or said they did not know when they would first be eligible for early retirement, compared with workers within 5 years of this age.

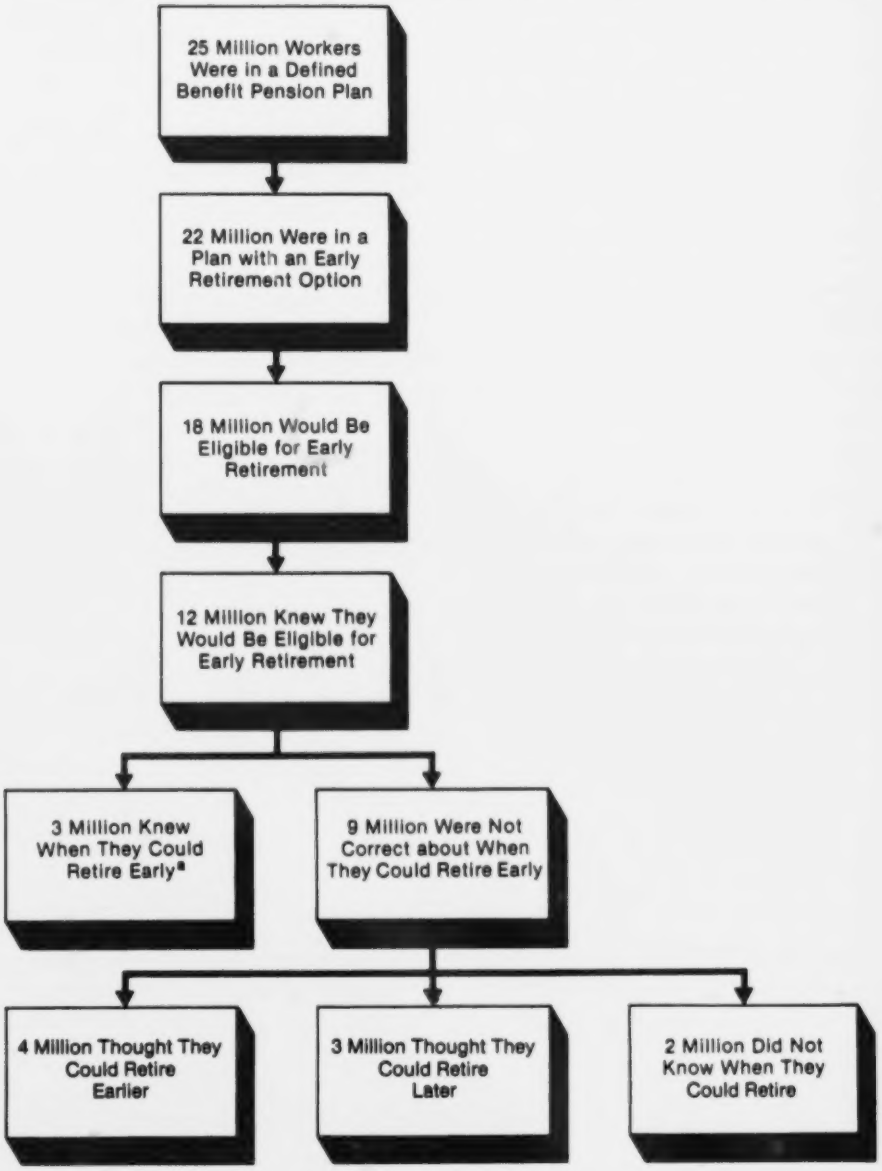
Again projecting from SCF data, among the 9 million workers who were not correct about their early retirement eligibility age, about 4 million workers thought they could retire earlier and 3 million thought they could retire later than plan documents indicated, while 2 million did not know.

Among the workers who reported an early retirement age (excluding those who said they did not know), about one-third responded with an age correct within 1 year of the plan early retirement age. This represents about 3 million workers, as shown in figure 4. Half the workers who reported an earlier age stated an age over 10 years earlier. In contrast, over half the workers who reported a later date stated an age only 2 to 5 years later than the plan age.

Workers in the sample did not respond with only ages commonly associated with early retirement (55 or 62). About 32 percent of workers who knew they would be eligible for early retirement responded with age 55 or 62 as their early retirement eligibility age. Age 55, the response of 23 percent of the workers, is a common early retirement age in pension plans. Age 62, the response of 9 percent of the workers, is the age workers can first receive reduced social security retirement benefits.

Higher proportions of younger workers, workers with shorter tenure, and workers more than 5 years from their plan early retirement age were not correct about their early retirement eligibility age (responding with either an earlier or later age or responding that they did not know), as shown in table 2. Workers' knowledge of their early retirement eligibility age did not vary significantly by education or sex. Differences in the proportions of public sector and private sector workers who were not correct about their early retirement eligibility age were not significant.

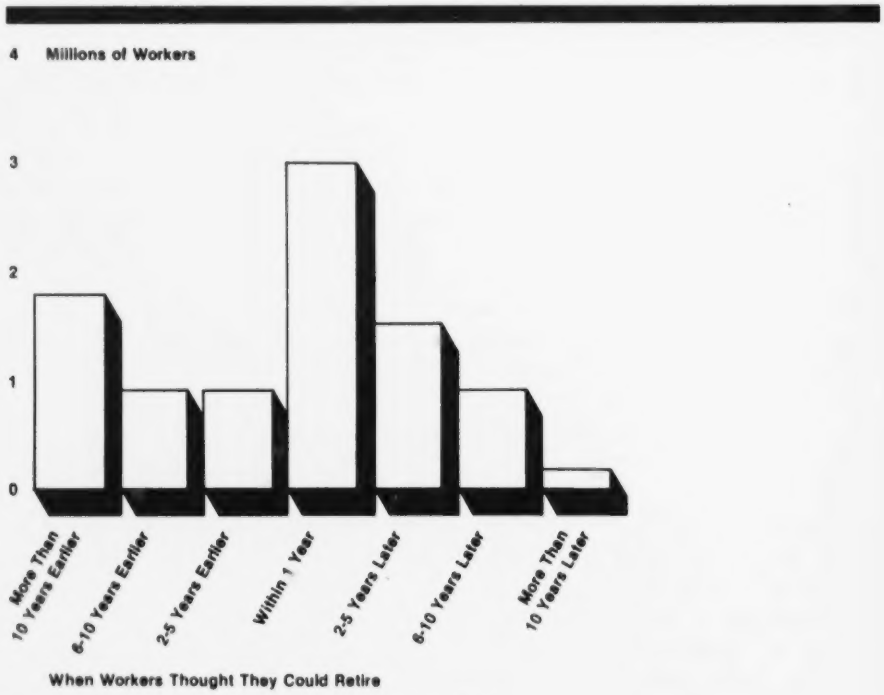
Figure 3: Workers' Knowledge of When They Would Be Eligible for Early Retirement Benefits (1983)


25 Million Workers Were in a Defined Benefit Pension Plan
22 Million Were in a Plan with an Early Retirement Option
18 Million Would Be Eligible for Early Retirement
12 Million Knew They Would Be Eligible for Early Retirement
3 Million Knew When They Could Retire Early[a]
9 Million Were Not Correct about When They Could Retire Early
4 Million Thought They Could Retire Earlier
3 Million Thought They Could Retire Later
2 Million Did Not Know When They Could Retire

Source: GAO estimates calculated from the 1983 SCF.

[a]We classified workers who thought they would be eligible for early retirement at a date within 1 year of their plan early retirement age as correct.

Figure 4: Comparison of Workers' Responses With Their Plan Early Retirement Age (1983)



Source: GAO estimates calculated from the 1983 SCF.

Most Workers Did Not Know When Normal Retirement Benefits Would Be Available

Of the workers in defined benefit pension plans in 1983, about 72 percent were not correct about when they would be eligible for normal retirement benefits (see fig. 5). This represents about 18 million workers. About 80 percent of the workers (an estimated 14 million) thought they could receive normal retirement benefits either earlier or later than plan documents indicated; another 20 percent (4 million) did not know when they would be eligible for normal retirement. A greater proportion of women and workers who were more than 5 years from normal retirement eligibility were wrong about their normal retirement age. Men and workers within 5 years of their plan normal retirement age were more likely to know their normal retirement age than other workers.

Table 2: Characteristics of Workers Who Were Not Correct About When They Would Be Eligible for Early Retirement Benefits (1983)

Characteristic	Not correct about timing of early retirement[a]	
	Percent of sample	Estimated number (millions)
Age:		
Less than 45 years	80[b]	6.1
45 to 54 years	58	1.2
55 years or more	63	1.1
Tenure:		
Less than 10 years	79[b]	4.8
10 years or more	68	3.8
Years until early retirement:[c]		
5 or less	60[b]	1.0
More than 5	77	6.6
Education:		
Beyond high school	71	4.7
Not beyond high school	77	3.8
Sex:		
Men	73	4.5
Women	75	4.0

[a]Includes workers who were incorrect or said they did not know. Estimate based on 12 million workers who knew they would qualify for early retirement.

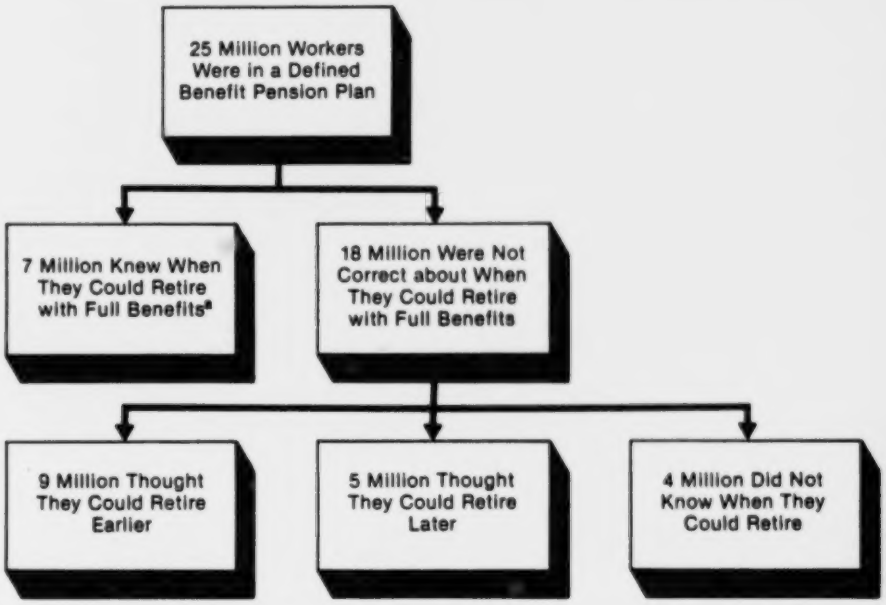
[b]Difference significant at the 95-percent confidence level.

[c]Data for an estimated 1 million workers were not complete enough to determine the number of years until early retirement.

Among workers who gave a normal retirement age (which excludes those who said they did not know), about 32 percent responded with an age within 1 year of the age we calculated from the plan information. This represents about 7 million workers, as shown in figure 6. Among those who responded with an earlier age, over one-third reported an age more than 10 years earlier, and over one-third reported an eligibility age 2 to 5 years earlier. Among the workers who reported an eligibility age later than the plan documents indicated, about half reported an age 2 to 5 years later.

Over 30 percent of the workers responding gave ages that could be considered common for normal retirement (55 or 65). While 18 percent of workers responded that age 65 was their date of eligibility for normal retirement, 14 percent gave age 55. The rest of the workers' responses ranged from ages 27 to 85.

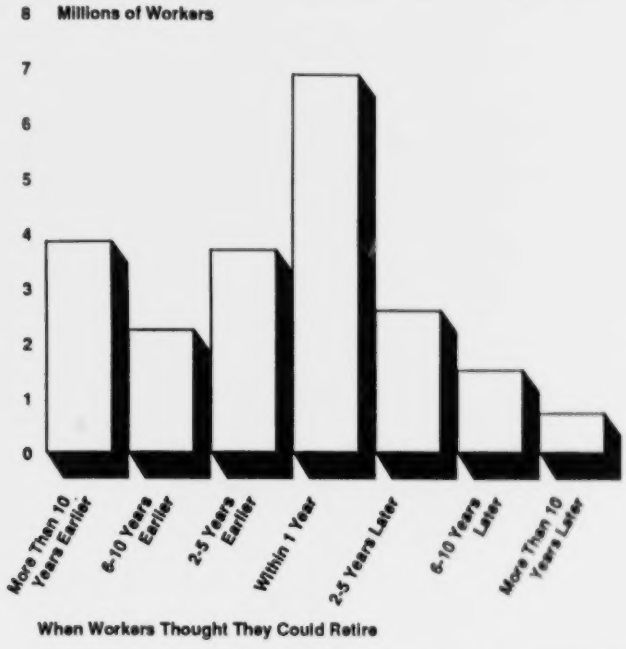
Figure 5: Workers' Knowledge of When They Would Be Eligible for Normal Retirement Benefits (1983)


25 Million Workers Were in a Defined Benefit Pension Plan
7 Million Knew When They Could Retire with Full Benefits[a]
18 Million Were Not Correct about When They Could Retire with Full Benefits
9 Million Thought They Could Retire Earlier
5 Million Thought They Could Retire Later
4 Million Did Not Know When They Could Retire

Source: GAO estimates calculated from the 1983 SCF.

[a]We classified workers who thought they would be eligible for normal retirement at a date within 1 year of their plan normal retirement age as correct.

Figure 6: Comparison of Workers' Responses With Their Plan Normal Retirement Age (1983)



Source: GAO estimates calculated from 1983 Survey of Consumer Finances

A small percentage of workers knew about both their normal retirement age and their early retirement age. Among the estimated 12 million workers who knew they would be eligible for early retirement, we estimated that:

- 11 percent knew both their normal and early retirement ages;
- 21 percent knew only their normal retirement age;
- 15 percent knew only their early retirement age; and
- 53 percent were wrong about both their early and normal retirement ages.

Comparatively More Women, Workers Further From Normal Retirement Were Wrong About Normal Retirement Age

About 77 percent of female workers (representing an estimated 10 million workers) either responded that they could retire earlier or later than the plan documents indicated or did not know when they could retire with full benefits, compared with 69 percent of the male workers (representing 9 million workers), as shown in table 3. Among workers more than 5 years from their plan normal retirement age, 74 percent (an

estimated 16 million workers) were wrong about when they could retire and receive full benefits, compared with 61 percent of workers within 5 years of normal retirement (2 million workers). The difference between workers with more and less education was not statistically significant. In addition, public sector and private sector workers did not differ significantly in their knowledge of when they would be eligible for normal retirement benefits.

Table 3: Characteristics of Workers Who Were Not Correct About When They Would Be Eligible for Normal Retirement Benefits (1983)

Characteristic	Not correct about timing of normal retirement[a]	
	Percent of sample	Estimated number (millions)
Sex:		
Men	69[b]	8.6
Women	77	9.7
Years until normal retirement:[c]		
5 or less	61[b]	1.7
More than 5	74	15.7
Tenure:		
Less than 10 years	79[b]	10.1
10 years or more	67	8.2
Age:		
Less than 45 years	76[b]	11.9
45 to 54 years	70	3.7
55 years or more	65	2.8
Education:		
Beyond high school	71	9.5
Not beyond high school	74	8.9

[a]Includes workers who were incorrect or said they did not know. Estimate based on 25 million workers in defined benefit pension plans.

[b]Difference significant at the 95-percent confidence level.

[c]Data for an estimated 1 million workers were not complete enough to determine the number of years until normal retirement.

Men and Workers Close to Normal Retirement Most Likely to Know When They Could Retire

In general, workers were more likely to be wrong than right about their normal retirement age regardless of sex, education, or closeness to retirement. However, sex and years until normal retirement eligibility were significantly related to workers' knowledge of normal retirement. (See app. III for details of this log-linear analysis.) Specifically:

- Men were 1.4 times more likely than women to know when they would be eligible for normal retirement.
- Workers within 5 years of their plan normal retirement age were 1.8 times more likely than workers more than 5 years from this age to know when they would qualify for normal retirement.
- Workers without education beyond high school were as likely as workers with education beyond high school to know when they would first qualify for normal retirement.

Summary

Employer-sponsored pensions are one component of the retirement income security system, supplementing social security retirement benefits and private savings. Workers are likely to be better able to plan for retirement if they understand their pension plans' eligibility requirements for early and normal retirement benefits.

However, according to our analysis, millions of workers in public and private defined benefit pension plans lack correct knowledge about their future eligibility for early retirement benefits and about the earliest ages at which they can retire with either reduced or full benefits.

Information on the 1983 Survey of Consumer Finances Data Set

The SCF data set contains information from 3,824 households, a total of 5,907 individuals, sampled throughout the continental United States, excluding those on military reservations. Our estimates are projected from the 1,158 individuals who met the criteria discussed on page 9. Table I.1 contains sampling errors for selected GAO estimates from the SCF at the 95-percent confidence level—the chances are 95 in 100 that the value being estimated lies within a range equal to the reported value plus or minus the sampling error.

Table I.1: Sampling Errors for Selected Estimates From the 1983 Survey of Consumer Finances

	No. of workers (millions)	
	Estimate	Sampling error
In a defined benefit plan (fig. 1):	25.2	1.3
With an early retirement option	22.2	0.4
Without an early retirement option	2.9	0.4
Knowledge of early retirement eligibility status (fig. 2)[a]:		
Correct	12.4	0.6
Incorrect	5.8	0.6
Said they did not know	3.1	0.4
Knowledge of early retirement eligibility age (fig. 3):		
Knew they would be eligible	11.6	0.6
Knew when they would be eligible	3.1	0.3
Thought they would be eligible earlier than actual date	3.7	0.3
Thought they would be eligible later than actual date	2.6	0.3
Said they did not know when they would be eligible	2.2	0.3
Did not know about their eligibility	5.9	0.6
Knowledge of eligibility for normal retirement (fig. 5):		
Knew when they would be eligible	6.8	0.5
Thought they would be eligible earlier than actual date	9.8[b]	0.5
Thought they would be eligible later than actual date	4.8	0.4
Said they did not know when they would be eligible	3.7	0.4

[a]Data for about 1 million workers were not complete enough to determine their knowledge of early retirement eligibility.

[b]This figure appears as 9 million in figure 5 due to rounding.

Determining Workers' Knowledge of Pension Plan Retirement Provisions

To determine how many workers knew about their plan's retirement provisions, we used SCF data on what the plan documents described as the early and normal retirement requirements, information about the workers' ages and tenures, and what these workers said about the requirements for their plan, in response to SCF questions cited on page 6.

Knowledge of Early Retirement Eligibility

To measure whether workers knew that they could retire early from their plans, we identified workers who would meet their plan's age and service requirements for early retirement, assuming they stayed in the plan. To do this, we calculated two ages:

- The age when the worker would first meet the plan's age and service requirements for early retirement (the "plan early retirement age").
- The age when the worker would first meet the plan's age and service requirements for normal retirement (the "plan normal retirement age").

We then used the following decision rules to classify workers with respect to early retirement eligibility, according to their plan:

- If the plan early retirement age was less than the plan normal retirement age, the worker would be eligible for early retirement.
- If the plan early retirement age was greater than, or equal to, the plan normal retirement age, the worker would not be eligible for early retirement.

By comparing our classification with individual workers' responses about early retirement eligibility, we determined whether these workers knew about their early retirement eligibility.

For example, assume Worker A and Worker B work at the same job for the same employer. To qualify for early retirement benefits in the pension plan, a worker must be at least 55 years old and have at least 30 years of service, or be at least 60 years old and have at least 25 years of service with the employer. To qualify for normal retirement benefits, a worker must be at least 65 years old and have at least 10 years of service. Both workers responded that they could retire early under their plan.

Assume Worker A was 45 years old at the time of the survey in 1983 and had been working at her current job for 20 years. She would first be eligible for early retirement at age 55, meeting the 55 and 30 requirement before the 60 and 25 requirement. In addition, Worker A would

first be eligible for normal retirement at age 65, meeting the 65 and 10 requirement. Since age 55 is earlier than age 65, Worker A would qualify for early retirement in this plan at age 55. Since Worker A responded that she could retire early and was actually eligible, we classified her as correct about early retirement eligibility.

Assume Worker B was 50 years old in 1983 and had been in his job for 9 years. He would first be eligible for early retirement at age 66, meeting the 60 and 25 requirement before the 55 and 30 requirement. In addition, Worker B would qualify for normal retirement at age 65, meeting the 65 and 10 requirement. Since Worker B will be eligible for normal retirement before he is eligible for early retirement, he will not be eligible for early retirement. Since Worker B responded that he could retire early, but he could not, we classified him as incorrect about early retirement eligibility.

Knowledge of Early and Normal Retirement Age

To examine workers' knowledge about the time they would first become eligible for early and normal retirement, we compared workers' responses to the SCF questions on retirement ages to the plan early and normal retirement ages. If the worker's response was within 1 year of the plan age, we classified the worker as correct.

For example, assume Worker A responded that she would be eligible for early retirement after 30 years of service, but did not give an age response. Given that she started working for her employer at age 25, we added 30 to 25 to determine her earliest early retirement age of 55. Since this was the same age that we calculated using the plan information, Worker A was correct about when she would first be eligible for early retirement. Worker A also would have been correct had she said age 55. However, had Worker A said she would be able to retire early after 20 years of service, she would have been incorrect.

Analyzing Characteristics of More Knowledgeable Workers: Log-Linear Analysis

To identify characteristics of workers who were more knowledgeable about their early retirement eligibility and when workers would be eligible for normal retirement, we used log-linear analysis.[1] This statistical technique is designed to identify associations or relationships in cross-classified categorical data, that is, data that are categorized on several dimensions simultaneously. We examined whether specific personal characteristics were significantly related to workers' knowledge and whether their effects were direct (regardless of other characteristics) or interactive (dependent on other characteristics). Further, we estimated the magnitude of these relationships, using odds and odds ratios.

Factors Associated With Workers' Knowledge of Early Retirement Eligibility

We used four personal characteristics—sex, eligibility for early retirement, years until the plan early retirement age, and level of education—as independent variables, or factors, in the analysis, and examined their association with the dependent variable—workers' knowledge of early retirement eligibility. We classified workers into one of the following categories:

- Those who knew whether they would be eligible for early retirement in their current employer's pension plan (the "correct" group).
- Those who were wrong about their early retirement eligibility status (the "incorrect" group).
- Those who said they did not know whether they would be eligible for early retirement (the "don't know" group).

We cross-classified workers' knowledge by their sex, eligibility, years until the plan early retirement age, and education. (See table III.1 for the numbers of workers in each of the subgroups resulting from this cross-classification scheme.)

Developing the Preferred Model

We developed a hierarchy of related models ranging from fairly simple to relatively complex to predict how many workers with particular characteristics would be correct or incorrect or would not know about their early retirement eligibility, if the relationships assumed in the model were true. For example, the simplest model assumed that none of the variables would affect knowledge, that is, the likelihood of workers

[1]For more details about log-linear analysis see, John J. Kennedy, Analyzing Qualitative Data: Introductory Log-Linear Analysis for Behavioral Research (New York: Praeger Publishers, 1983), and Leo Goodman, Analyzing Qualitative Categorical Data: Log-Linear Models and Latent Structure Analysis (Lanham: Abt Associates, 1978).

Table III.1: Workers' Knowledge of Early Retirement Eligibility: Actual Survey Results and Expected Frequencies From the Preferred Model

				Actual survey results			Expected frequencies		
Sex	**Eligibility**	**Years until early retirement**	**Education level**	**Correct**	**Incorrect**	**Don't know**	**Correct**	**Incorrect**	**Don't know**
Male	Would be eligible	5 or less	High school or less	15	7	0	13.8	8.0	0.7
			Beyond high school	22	9	0	23.7	6.6	1.2
		More than 5	High school or less	72	31	17	78.6	29.3	12.1
			Beyond high school	139	23	18	135.0	24.3	20.7
	Would not be eligible	5 or less	High school or less	3	3	0	2.5	3.9	0.1
			Beyond high school	0	4	0	1.9	3.0	0.1
		More than 5	High school or less	10	25	2	8.2	25.7	3.1
			Beyond high school	6	19	1	5.8	18.1	2.2
Female	Would be eligible	5 or less	High school or less	15	8	4	14.8	8.5	3.7
			Beyond high school	22	6	5	21.6	6.0	5.4
		More than 5	High school or less	80	30	33	80.9	30.2	32.0
			Beyond high school	98	16	35	94.6	17.0	37.4
	Would not be eligible	5 or less	High school or less	4	6	0	3.8	6.0	0.7
			Beyond high school	2	1	0	1.3	2.0	0.3
		More than 5	High school or less	9	26	9	8.6	27.0	8.4
			Beyond high school	5	25	8	7.4	23.3	7.2

being in each knowledge category would be the same across the various subgroups. Within the hierarchy we allowed for the association of knowledge, the dependent variable, with sex, education, eligibility for early retirement, and years until the plan early retirement age, as well as for interaction among these four independent variables.

Using statistical tests that compared acceptable models, we determined the "preferred" model, the model that included only the variables that had a statistically significant relationship to the dependent variable, after controlling for the association of other variables with one another and the dependent variable. This model is one that both fits the data well and cannot be improved upon significantly by any other model that is more complex. (See table III.2 for a description of the models tested and the results. See table III.1 for the expected frequencies of the number of workers in the different categories generated by the preferred model—model 19 in table III.2.)

Table III.2: Workers' Knowledge of Early Retirement Eligibility: Log-Linear Models Tested

Model	Marginals and associations fitted[a]				Degrees of freedom	Likelihood ratio chi-square	p value	Models contrasted	p value
1	[K]				30	217.75	.00		
2	[SK]	[QK]	[YK]	[EK]	22	30.59	.11		
3	[SK]	[QK]	[YK]		24	38.84	.03	3 vs. 2	< .05
4	[SK]	[QK]	[EK]		24	43.64	.01	4 vs. 2	< .05
5	[SK]	[YK]	[EK]		24	164.23	.00	5 vs. 2	< .05
6	[QK]	[YK]	[EK]		24	57.58	.00	6 vs. 2	< .05
7	[SQK]	[YK]	[EK]		20	29.45	.08	7 vs. 2	NS[b]
8	[SYK]	[QK]	[EK]		20	24.61	.22	8 vs. 2	< .05
9	[SEK]	[QK]	[YK]		20	29.76	.07	9 vs. 2	NS
10	[QYK]	[SK]	[EK]		20	23.22	.28	10 vs. 2	< .05
11	[QEK]	[SK]	[YK]		20	21.58	.36	11 vs. 2	< .05
12	[YEK]	[SK]	[QK]		20	29.21	.08	12 vs. 2	NS
13[c]	[SYK]	[QYK]	[QEK]		16	9.21	.91		
14	[SYK]	[QYK]	[EK]		18	17.14	.51	14 vs. 13	< .05
15	[SYK]	[QEK]			18	15.76	.61	15 vs. 13	< .05
16	[QYK]	[QEK]	[SK]		18	15.14	.65	16 vs. 13	< .05
17[d]	[SYK]	[QYK]	(QEK')		19	12.10	.88	17 vs. 13	NS
18[e]	[QYK]	(SYK')	(QEK')		21	12.61	.92	18 vs. 17	NS
19[f,g]	(QYK')	(SYK')	(QEK')		22	14.20	.89	19 vs. 18	NS

[a]K=Knowledge of when the worker would be eligible for early retirement benefits—correct, incorrect, or don't know.
S=Sex—male or female.
Q=Eligibility status—qualified for early retirement or not qualified.
Y=Years until early retirement eligibility—5 or more, less than 5.
E=Education level—high school or less, beyond high school.

[b]Not significant.

[c]Preferred standard model, without constrained interactions.

[d](QEK') is a constrained interaction—education affects the tendency to be incorrect only for those who will be eligible for early retirement.

[e](SYK') is a constrained interaction—sex affects the tendency to be unsure differently for workers near to and far from early retirement.

[f](QYK') is a constrained interaction—eligibility and years until early retirement affect knowledge only with respect to correctness.

[g]Preferred model.

Computing the Odds and Odds Ratios

Using the expected frequencies from the preferred model, we computed the odds for each category of being correct, incorrect, or not knowing about early retirement eligibility. In log-linear analysis, odds indicate

the tendency of a given subgroup, defined by one or more variables in the analysis, to be in one or another knowledge category. For example, the odds of being correct compared to incorrect of workers (both men and women) who would be eligible for early retirement, who were within 5 years of early retirement, and who had education beyond high school were 3.6 to 1. This means that, based on the expected frequencies, for every 36 workers in this group (eligible, within 5 years of early retirement, education beyond high school) who knew about their early retirement eligibility, 10 other workers in the group were incorrect. (See table III.3 for the odds calculations.)

To measure the magnitude of the association between particular variables, we computed the "odds ratio" by dividing the odds for one group by the odds for the other. For example, to look at how education affected knowledge, we divided the odds of being correct for both men and women who would be eligible and had more education (3.59) by the odds of being correct for both men and women who would be eligible and had less education (1.73). (See table III.3 for the odds ratios.) The resulting odds ratio (3.59/1.73 = 2.1, rounded to 2) showed that workers who would be eligible for early retirement and had education beyond high school were twice as likely to know about their eligibility status as workers who would be eligible but did not have education beyond high school. Based on similar calculations, we found that education had no effect on knowledge among people who would not be eligible to take early retirement.

The estimate of the effect reflected in the odds ratio is a net effect for a particular variable. That is, it reflects the effect of that variable after any association between this variable and the other independent variables, as well as the association between these independent variables and the dependent variable, is accounted for. If there were no significant differences between two groups, their odds would be equal, and the ratio of their odds would be one. This was the case for the odds of men and women being correct compared to incorrect, as shown in table III.3. The greater the odds ratio differs from one, in either direction, the larger the effect it represents.

Table III.3: Workers' Knowledge of Early Retirement Eligibility: Odds and Odds Ratios[a]

				Odds
Sex	**Eligibility**	**Years until early retirement**	**Education level**	**Correct: incorrect**
Male	Would be eligible	5 or less	High school or less	1.73
			Beyond high school	3.59
		More than 5	High school or less	2.68
			Beyond high school	5.55
	Would not be eligible	5 or less	High school or less	0.64
			Beyond high school	0.64
		More than 5	High school or less	0.32
			Beyond high school	0.32
Female	Would be eligible	5 or less	High school or less	1.73
			Beyond high school	3.59
		More than 5	High school or less	2.68
			Beyond high school	5.55
	Would not be eligible	5 or less	High school or less	0.64
			Beyond high school	0.64
		More than 5	High school or less	0.32
			Beyond high school	0.32

[a]The odds ratios in this table may not match those obtained from direct calculation from the expected frequencies. The difference is due to (1) rounding of the expected frequencies, (2) rounding error in the odds calculated from these frequencies, and (3) rounding error in the odds ratios calculated from these odds. These rounding errors occur particularly in calculations involving cells with small expected frequencies.

Odds ratios				Odds	Odds ratios			
Sex	Eligible for early retirement	Years until early retirement	Education level		Sex	Eligible for early retirement	Years until early retirement	Education level
Women: men	Yes: no	More than 5: less than 5	Beyond high school: high school or less	Don't know: incorrect	Women: men	Yes: no	More than 5: less than 5	Beyond high school: high school or less
1.0	2.7	1.5	2.1	0.08	5.0	3.5	5.0	2.1
1.0	5.6	1.5		0.18	5.0	7.0	5.0	
1.0	8.4		2.1	0.41	2.5	3.5		2.1
1.0	17.3			0.85	2.5	7.0		
1.0		0.5	1.0	0.024	5.0		5.0	1.0
1.0		0.5		0.024	5.0		5.0	
1.0			1.0	0.12	2.5			1.0
1.0				0.12	2.5			
	2.7	1.5	2.1	0.43		3.5	2.5	2.1
	5.6	1.5		0.89		7.0	2.5	
	8.4		2.1	1.06		3.5		2.1
	17.3			2.20		7.0		
		0.5	1.0	0.12			2.5	1.0
		0.5		0.12			2.5	
			1.0	0.31				1.0
				0.31				

Factors Associated With Workers' Knowledge of When They Would Be Eligible for Normal Retirement Benefits

We also used log-linear analysis to identify what personal characteristics affected workers' knowledge of when they would be eligible for normal retirement. We examined a hierarchy of related models that allowed for association between knowledge, the dependent variable, and sex, education, and years until the plan normal retirement age, as well as interaction among these three independent variables. We classified workers into the following categories:

- Workers who knew, within 1 year, when they would be eligible for normal retirement.
- The remainder of the workers, those who responded with an age for normal retirement more than 1 year earlier or more than 1 year later, and those who said they did not know when they would be eligible for normal retirement.

We cross-classified workers' knowledge by their sex, years until the plan normal retirement age, and education. (See table III.4 for how many workers were in each of the subgroups. See table III.5 for a description

of the models tested and the results. See table III.4 for the expected frequencies generated by the preferred model, model 5 in table III.5. See table III.6 for the odds and odds ratios for the different groups.)

Table III.4: Workers' Knowledge of When They Would Be Eligible for Normal Retirement Benefits: Actual Survey Results and Expected Frequencies From the Preferred Model

			Actual survey results		Expected frequencies	
Sex	**Years until retirement**	**Education level**	**Correct**	**Not correct**	**Correct**	**Not correct**
Male	5 or less	High school or less	16	14	13.1	16.9
		Beyond high school	13	18	13.5	17.5
	More than 5	High school or less	60	151	62.4	148.6
		Beyond high school	78	186	78.1	185.9
Female	5 or less	High school or less	12	30	14.7	27.3
		Beyond high school	8	14	7.7	14.3
	More than 5	High school or less	50	188	54.1	183.9
		Beyond high school	63	185	56.4	191.6

Table III.5: Workers' Knowledge of When They Would Be Eligible for Normal Retirement Benefits: Log-Linear Models Tested

Model	Marginals and associations fitted[a]			Degrees of freedom	Likelihood ratio chi-square	p value	Models contrasted	p value
1	[K]			7	19.18	.01		
2	[SK]			6	12.57	.05	2 vs. 1	<.02
3	[YK]			6	10.27	.11	3 vs. 1	<.01
4	[EK]			6	18.53	.01	4 vs. 1	NS[b]
5[c]	[SK]	[YK]		5	3.53	.62		
6	[SK]	[EK]		5	12.14	.03		
7	[YK]	[EK]		5	9.22	.10		
8	[SK]	[YK]	[EK]	4	2.78	.60	8 vs. 5	NS
9	[SYK]			4	2.59	.63	9 vs. 5	NS
10	[SEK]			4	11.24	.02		
11	[YEK]			4	9.12	.06		
12	[SYK]	[EK]		3	1.90	.59		
13	[SEK]	[YK]		3	1.62	.65		
14	[YEK]	[SK]		3	2.60	.46		
15	[SYK]	[SEK]		2	.89	.64		
16	[SYK]	[YEK]		2	1.57	.46		
17	[SEK]	[YEK]		2	1.43	.49		
18	[SYK]	[SEK]	[YEK]	1	.58	.45		
19[d]	[SK]	[YK]	(YEK')	4	3.53	.47	19 vs. 5	NS
20[e]	[SK]	[YK]	(SYEK')	4	1.91	.75	20 vs. 5	NS
21[f]	(YEK')			6	14.59	.02		
22[g]	(SYK')			6	7.56	.27	5 vs. 22	<.05
23[h]	(SYEK')			5	10.14	.12		

[a]K=Knowledge of when the worker would be eligible for full retirement benefits—correct, not correct.
S=Sex—male, female.
Y=Years until normal retirement eligibility—5 or more, less than 5.
E=Education level—high school or less, beyond high school.

All models contain the term [SYE], the interaction among the 3 independent variables. Terms in brackets refer to unconstrained interactions; terms in parentheses refer to constrained interactions.

[b]Not significant.

[c]Preferred model.

[d](YEK') is a constrained interaction—education affects knowledge only for workers close to normal retirement.

[e](SYEK') is a constrained interaction—education affects knowledge only for men close to retirement.

[f](YEK') is a constrained interaction—workers near retirement with a high school education or less differ in the correctness of their knowledge from all other groups.

[g](SYK') is a constrained interaction—men near retirement differ in their correctness from everyone else.

[h](SYEK') is a constrained interaction—men near retirement with a high school education or less differ in their knowledge from everyone else.

Table III.6: Workers' Knowledge of When They Would Be Eligible for Normal Retirement: Odds and Odds Ratios[a]

			Odds	Odds ratios		
				Sex	Years until early retirement	Education level
Sex	Years until retirement	Education level	Correct: not correct	Men: women	5 or less: more than 5	High school or less: beyond high school
Male	5 or less	High school or less	0.77	1.4	1.8	1.0
		Beyond high school	0.77	1.4	1.8	
	More than 5	High school or less	0.42	1.4		1.0
		Beyond high school	0.42	1.4		
Female	5 or less	High school or less	0.54		1.8	1.0
		Beyond high school	0.54		1.8	
	More than 5	High school or less	0.29			1.0
		Beyond high school	0.29			

[a]The odds ratios in this table may not match those obtained from direct calculation from the expected frequencies. The difference is due to (1) rounding of the expected frequencies, (2) rounding error in the odds calculated from these frequencies, and (3) rounding error in the odds ratios calculated from these odds. These rounding errors occur particularly in calculations involving cells with small expected frequencies.

Findings From the Log-Linear Analysis

Findings from these log-linear analyses are discussed beginning on page 13.

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